

EXHIBIT 20

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

<p>TQ DELTA, LLC,</p> <p style="text-align: right;">Plaintiff,</p> <p style="text-align: center;">v.</p> <p>ZYXEL COMMUNICATIONS, INC. and ZYXEL COMMUNICATIONS CORPORATION,</p> <p style="text-align: right;">Defendants.</p>	<p>Civil Action No. 13-cv-2013-RGA</p>
<p>TQ DELTA, LLC,</p> <p style="text-align: right;">Plaintiff,</p> <p style="text-align: center;">v.</p> <p>ADTRAN, INC.</p> <p style="text-align: right;">Defendant.</p>	<p>Civil Action No. 14-cv-954-RGA</p>
<p>ADTRAN, INC,</p> <p style="text-align: right;">Plaintiff,</p> <p style="text-align: center;">v.</p> <p>TQ DELTA, LLC.</p> <p style="text-align: right;">Defendant.</p>	<p>Civil Action No. 15-cv-121-RGA</p>

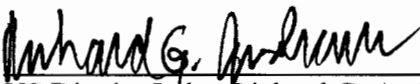
~~PROPOSED~~ **CLAIM CONSTRUCTION ORDER FOR
FAMILY 9 PATENTS**

The Court has determined that the terms below shall be given the following meaning for Family 9 Patents (U.S. Patent Nos. 8,335,956 (“the ’956 patent”), 8,407,546 (“the ’546 patent”), 8,468,411 (“the ’411 patent”), 8,595,577 (“the ’577 patent”), and 8,645,784 (“the ’784 patent”)):

1. **“the [shared] memory”** – “common memory used by at least two functions, where a portion of the memory can be used by either one of the functions”
2. **“amount of [the] [shared] memory”** – plain meaning
3. **“how much of the [shared] memory”** – plain meaning
4. **“portion of the [shared] memory”** – plain meaning

5. “allocating a [first / second] portion of the shared memory to the [deinterleaving / packet retransmission] function” – plain meaning
6. “allocating a memory between a retransmission function and an interleaving and/or deinterleaving function” – plain meaning
7. “a message indicating how the shared memory [] is to be allocated to the packet retransmission function and to the one or more of interleaving [or/and] deinterleaving functions” – plain meaning
8. “wherein a message transmitted during initialization indicates how the memory has been allocated between the retransmission function and the interleaving and/or deinterleaving function” – plain meaning
9. “wherein at least a portion of the memory may be allocated to the retransmission function or to the interleaving and/or deinterleaving function at anyone particular time” – plain meaning
10. “wherein at least a portion of the memory may be allocated between the retransmission function and the interleaving and/or deinterleaving function at any one particular time depending on the message” – plain meaning
11. “transceiver” – “communications device capable of transmitting and receiving data wherein the transmitter portion and receiver portion share at least some common circuitry”
12. “packet” – “a grouping of bytes”
13. “multicarrier” – “having multiple carrier signals that are combined to produce a transmission signal”

IT IS SO ORDERED this 15 day of May, 2018.


US District Judge Richard G. Andrews

From: ded_nefreply@ded.uscourts.gov
Sent: Tuesday, May 15, 2018 11:25 AM
To: ded_ecf@ded.uscourts.gov
Subject: Activity in Case 1:13-cv-02013-RGA TQ Delta LLC v. ZyXEL Communications Inc. et al Order

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U.S. District Court

District of Delaware

Notice of Electronic Filing

The following transaction was entered on 5/15/2018 at 12:25 PM EDT and filed on 5/15/2018

Case Name: TQ Delta LLC v. ZyXEL Communications Inc. et al

Case Number: [1:13-cv-02013-RGA](#)

Filer:

Document Number: [527](#)

Docket Text:

CLAIM CONSTRUCTION ORDER FOR FAMILY 9 PATENTS. Signed by Judge Richard G. Andrews on 5/15/2018. Associated Cases: 1:13-cv-02013-RGA, 1:14-cv-00954-RGA, 1:15-cv-00121-RGA(nms)

Case Name: TQ Delta LLC v. ADTRAN Inc.

Case Number: [1:14-cv-00954-RGA](#)

Filer:

Document Number: [396](#)

Docket Text:

CLAIM CONSTRUCTION ORDER FOR FAMILY 9 PATENTS. Signed by Judge Richard G. Andrews on 5/15/2018. Associated Cases: 1:13-cv-02013-RGA, 1:14-cv-00954-RGA, 1:15-cv-00121-RGA(nms)

Case Name: Adtran Inc v. TQ Delta LLC

Case Number: [1:15-cv-00121-RGA](#)

Filer:

Document Number: [397](#)

Docket Text:

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